UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,668	05/18/2001	Siew Yong Sim	72100.911D2	3647

7590   12/14/2005

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EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Summary	09/681,668	SIM ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-17,19-30 and 32-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-17,19-30 and 32-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   This Office action is in response to applicant's paper filed 10/22/2005

2.   **Claims 1, 2, 4-17, 19-30 and 32-41** as amended are still in consideration for this

application. Applicant has amended claims 1, 4, 14, 15, 16, 29, and 32. Applicant has canceled

claims 3, 18, and 31.

3.   Examiner **withdraws** the anticipated rejections to *Kenner* and *Ehrman* and

corresponding obviousness rejections since applicant amended the claims to include previously

allowed subject matter. However, based on the newly cited reference US005924116A supplied

in the IDS, the examiner notes that the previously allowed limitation would have been obvious to

one skilled in the art based on the information found in the cited reference. As a result, see new

rejection below. Although the rejection could have been made final, the examiner has made the

current Office action non-final based on applicant's previous amendment.

The examiner also notes US006105029A cited in the IDS as a relevant primary reference.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   **Claims 1, 2, 4-8, 16, 17, and 19-23** are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 6,502,125 B1 to *Kenner et al.* ("*Kenner*") in view of U.S.

Patent No. 5,924,116 A to *Aggarwal et al.* ("*Aggarwal*").

As such to **claim 1**, see e.g., figure 1 of *Kenner* where sending a search request to determine which nodes in a network have content for a requesting node is the request for delivery sites sent from the user terminal 12 to the MSP 32. The network in figure 1 has a plurality of nodes, e.g., MSP 32 and delivery sites 26, 28, and 30. Receiving a response to said search request from each of one or more response nodes having said content is the response sent back from the MSP containing the delivery site information in the delivery site file, see e.g., column 8, lines 25-39. Determining from said response which of said responding nodes are a desired set of nodes to download said content from is taught when the configuration utility 34 makes a determining of which delivery sites 26, 28, and 30 to use. Downloading said content from said desired set of nodes and storing said downloaded content onto said requesting node is taught when the user 12 receives the information from the delivery sites 26, 28, and 30, see e.g., column 14, lines 5-8.

Kenner is silent or deficient to the further limitation of having a plurality of nodes *arranged in the form of a virtual tree* for passing control information.

Aggarwal teaches the further recited limitation above at e.g., column 5, line 27 – column 6, line 60 with respect to passing caching information down the hierarchy using PICS.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Kenner* by clarifying that the nodes are further arranged in a virtual tree.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation

for modifying the reference or to combine the reference teachings would be to select a server based on a hierarchy. In particular, *Aggarwal* cures the above-cited deficiency by providing a motivation found at e.g., column 3, line 65 – column 4, line 5.

As to **claim 2**, in *Kenner*, the file is downloaded from a distribution site where the file comprises blocks as is known in the art.

As to **claim 4**, see the above rejection for claim 1 with respect to *Aggarwal*. In particular, *Aggarwal* teaches the above limitation at e.g., column 5, line 27 – column 6, line 60 with respect to passing caching information down the hierarchy using PICS. Examiner notes the same motivation for making the proposed modification as mentioned in the rejection for the parent claim.

As to **claims 5-6**, the PICS protocol is a bitmap protocol, see e.g., *Aggarwal* column 6, line 61 – column 7, line 7. Examiner notes the same motivation for making the proposed modification as mentioned in the rejection for the parent claim.

As to **claim 7**, see e.g., figure 2 in view of figure 1 for *Kenner* which teaches sending a search request via the MSP 32which is in-turn sent indirectly to the delivery sites. The reference is met in combination since the delivery sites are arranged in a virtual tree as taught by *Aggarwal*.

As to **claim 8**, *Aggarwal* teaches moving down the hierarchy with respect to finding information. Examiner notes the same motivation for making the proposed modification as mentioned in the rejection for the parent claim.

As to **claim 16**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 2.

As to **claim 19**, see similar rejection to claim 4.

As to **claim 20**, see similar rejection to claim 5.

As to **claim 21**, see similar rejection to claim 6.

As to **claim 22**, see similar rejection to claim 7.

As to **claim 23**, see similar rejection to claim 8.

6.   **Claims 1, 2, 4-17, 19-30, and 32-41** are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent Application Pub 2002/00404479 A1 to *Ehrman et al.* ("*Ehrman*")

in view of U.S. Patent No. 5,924,116 A to *Aggarwal et al.* ("*Aggarwal*").

As such to **claim 1**, see e.g., figure 1 of *Ehrman* where sending a search request to

determine which nodes in a network have content for a requesting node is the request for

content sent from the receiving peer 12 to the streaming content manager 14. The

network in figure 1 has a plurality of nodes, e.g., receiving content manger 14 and

supplying peers 10. Receiving a response to said search request from each of one or

more response nodes having said content is the response sent back from the authorized

suppliers, see e.g., page 2, paragraph 0023. Determining from said response which of

said responding nodes are a desired set of nodes to download said content from is taught

since if congestion occurs another supplying peer 10 can be selected, see e.g., page 2,

paragraph 0036. Downloading said content from said desired set of nodes and storing

said downloaded content onto said requesting node is taught when the receiving peer 12

receives the information from the supplying peers 10, see e.g., column 14, lines 5-8.

Ehrman is silent or deficient to the further limitation of having a plurality of

nodes *arranged in the form of a virtual tree* for passing control information.

Aggarwal teaches the further recited limitation above at e.g., column 5, line 27 –

column 6, line 60 with respect to passing caching information down the hierarchy using

PICS.

The proposed modification of the above-applied reference(s) necessary to arrive

at the claimed subject matter would be to modify *Ehrman* by clarifying that the nodes are

further arranged in a virtual tree.

As such, examiner notes that it would have been obvious to one skilled in the art

prior to applicant's invention to include the above limitation. In particular, the motivation

for modifying the reference or to combine the reference teachings would be to select a

server based on a hierarchy. In particular, *Aggarwal* cures the above-cited deficiency by

providing a motivation found at e.g., column 3, line 65 – column 4, line 5.

As to **claim 2**, *Ehrman* teaches that the stream content manager is responsible for

splitting up a stream, see e.g., figures 2a and 2b.

As to **claim 4**, see the above rejection for claim 1 with respect to *Aggarwal*. In

particular, *Aggarwal* teaches the above limitation at e.g., column 5, line 27 – column 6,

line 60 with respect to passing caching information down the hierarchy using PICS.

Examiner notes the same motivation for making the proposed modification as mentioned

in the rejection for the parent claim.

As to **claims 5-6**, the PICS protocol is a bitmap protocol, see e.g., *Aggarwal*

column 6, line 61 – column 7, line 7. Examiner notes the same motivation for making the

proposed modification as mentioned in the rejection for the parent claim.

As to **claim 7**, *Ehrman* teaches the requesting node sending a notification to the supplying peers, see e.g., figure 1 where the supplying peers are arranged in a virtual tree as taught in combination by *Aggarwal*.

As to **claim 8**, *Aggarwal* teaches moving down the hierarchy with respect to finding information. Examiner notes the same motivation for making the proposed modification as mentioned in the rejection for the parent claim.

As to **claim 9**, *Ehrman* teaches that performance characteristics could be the additional information supplied with each stream, see e.g., paragraph 0028 on page 2.

As to **claim 10**, *Ehrman* teaches that overlapping content servers are taught as redundant supplying peers, see e.g., page 2, paragraph 0036.

As to **claims 11 and 13**, *Ehrman* teaches that if a stream chuck is not received in time then latency is perceived in the network and adjustments are made based on the detected network congestion, see e.g., paragraph 0028 on page 2.

As to **claim 12**, *Ehrman* teaches that since the streams are sent using different supplying peers, the streams are sent in parallel.

As to **claim 14**, see similar rejection to claim 1. In addition, *Ehrman* teaches that a threshold level of latency is based on whether the block is received or not. If the block is not received in time then another supplying peer is selected thus meeting the additional claim limitation. In addition, further performance characteristics could be the additional information supplied with each stream, see e.g., paragraph 0028 on page 2 of *Ehrman*.

As to **claim 15**, see similar rejection to claim 14. In addition, *Ehrman* teaches that since the streams are sent using different supplying peers, the streams are sent in parallel.

As to **claim 16**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 2.

As to **claim 19**, see similar rejection to claim 4.

As to **claim 20**, see similar rejection to claim 5.

As to **claim 21**, see similar rejection to claim 6.

As to **claim 22**, see similar rejection to claim 7.

As to **claim 23**, see similar rejection to claim 8.

As to **claim 24**, see similar rejection to claim 9.

As to **claim 25**, see similar rejection to claim 10.

As to **claim 26**, see similar rejection to claim 11.

As to **claim 27**, see similar rejection to claim 12.

As to **claim 28**, see similar rejection to claim 13.

As to **claim 29**, see similar rejection to claim 1. In particular, note that the server is the streaming content manager 14 and the requesting node is the receiving peer 12.

As to **claim 30**, see similar rejection to claim 2.

As to **claim 32**, see similar rejection to claim 4.

As to **claim 33**, see similar rejection to claim 5.

As to **claim 34**, see similar rejection to claim 6.

As to **claim 35**, see similar rejection to claim 7.

As to **claim 36,** see similar rejection to claim 8.

As to **claim 37**, see similar rejection to claim 9.

As to **claim 38**, see similar rejection to claim 10.

As to **claim 39**, see similar rejection to claim 11.

As to **claim 40**, see similar rejection to claim 12.

As to **claim 41**, see similar rejection to claim 13.

Conclusion

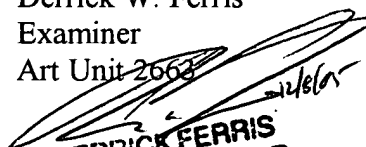Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF